

Applicant : Helmut Theiler
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AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A circuit array for controlling two independent loads operable with for controlling operation of two loads that operate with a rectified AC voltage (2, 3), the circuit array comprising:

a semiconductor switch on a circuit path that includes the two loads; and

a control unit to generate (11) for generating a switch control signal that controls the semiconductor switch; for a semiconductor switch (14, 24), by means of which the two loads (2, 3) are each controllable as a factor of one control signal (17, 18) per load,

wherein the control unit (11) contains comprises:

a phase detection device to detect whether a (6), by means of which a positive or negative phase of the AC voltage is positive or negative, is detectable, and which furnishes an to output a detection signal (16) describing the current that is based on whether the phase is positive or negative[.]; and

wherein the control unit (11) contains a logic unit (19) for linking the to generate the switch control signal based on load control signals (17, 18) to the output signal (16) of and the phase detection signal device (6) for determination of the control signal.

2. (Currently Amended) The circuit array according to of claim 1, wherein the control unit further comprises a time control circuit for generating one of the load control signals, the time control circuit generating the one of the load control signals at a predetermined time ~~characterized in that a time control (7) is provided to generate at least one control signal (17).~~

3. (Currently Amended) The circuit array of claim 1 according to claim 1 or 2, wherein the control unit further comprises ~~characterized in that~~ a sensor circuit for generating one of the load control signals, the sensor circuit generating the one of the load control signals in response to a sensed condition ~~(8) is provided to generate at least one control signal (18).~~

4. (Currently Amended) The circuit array of claim 1 according to one of claims 1 to 3, characterized in that ~~wherein~~ the logic unit is comprises a multiplexer that receives the load control signals and that outputs the switch control signal in response to the detection signal.

5. (Currently Amended) The circuit array of claim 1 according to one of claims 1 to 4, characterized in that ~~wherein~~ the circuit array is part of an integrated circuit component.

6. (Currently Amended) An electronic ~~electric~~ device, comprising:

~~having~~ an input (20) ~~with~~ having two leads for to receive AC voltage[[,]];

[[-]] a circuit array for controlling a switch to apply voltage to two loads based on whether a phase of the AC voltage is positive or negative and load control signals generated separately for the two loads; (11) according to one of claims 1 to 5, and

[[-]] a rectifier (D11 ... D14), ~~which~~ that is connected to the AC voltage input (20), ~~and which furnishes a~~ and that provides the rectified voltage to ~~supply~~ the loads, the voltage being generated from the AC voltage (2, 3) and the circuit array (11) for controlling the loads (2, 3), wherein the rectifier (D11 ... D14) is executed in comprises an open bridge circuit, and wherein the voltage comprises different half waves of the AC voltage that are applied to different loads in which a shared DC voltage output (21) is connected to a first load connection of the semiconductor switch (14, 24) and the open DC voltage outputs (22, 23) are each connected to one lead for a load (2, 3), the other lead of which is connected to the second load connection of the semiconductor switch (14, 24).

7. (New) The electronic device of claim 6, wherein the circuit array comprises:

a phase detection device to detect whether a phase of the AC voltage is positive or negative and to output a detection signal that corresponds to the phase; and

a logic unit to generate, based on the load control signals and the detection signal, a switch control signal to control the switch.

8. (New) The electronic device of claim 6, wherein the control unit comprises a time control circuit for generating one of the load control signals, the time control circuit generating the one of the load control signals at a predetermined time.

9. (New) The electronic device of claim 6, wherein the control unit comprises a sensor circuit for generating one of the load control signals, the sensor circuit generating the one of the load control signals in response to a sensed condition.

10. (New) The electronic device of claim 7, wherein the logic unit comprises a multiplexer that receives the load control signals and that outputs the switch control signal in response to the detection signal.

11. (New) The electronic device of claim 6, wherein the circuit array is part of an integrated circuit.

12. (New) Circuitry for controlling application of voltage to first and second loads, the circuitry comprising:

a switch between ground and the first and second loads;

a first circuit to output a first signal indicating to power the first load;

a second circuit to output a second signal indicating to power the second load;

a phase detector to output a third signal indicative of a phase of an AC voltage;

logic that operates in response to the first signal, the second signal, and the third signal to open or close the switch; and

a rectifier to provide one half wave of the AC voltage to the first load and a different half wave of the AC voltage to the second load.

13. (New) The electronic device of claim 12, wherein the first circuit comprises a time control circuit, the time control circuit generating the first signal at a predetermined time.

14. (New) The electronic device of claim 12, wherein the second circuit comprises a sensor circuit, the sensor circuit generating the second signal in response to a sensed condition.

15. (New) The electronic device of claim 12, wherein the logic outputs a control signal, and the switch comprises a transistor having a gate that receives the control signal.

16. (New) The electronic device of claim 12, wherein the rectifier comprises a resistive-capacitive circuit that includes diodes.

17. (New) The electronic device of claim 12, wherein the logic comprises:
a first AND gate that receives the first signal and an inverted version of the third signal, and that outputs a first intermediary signal;

a second AND gate that receives the second signal and the inverted version of the third signal, and that outputs a second intermediary signal; and

an OR gate that receives the first intermediary signal and the second intermediary signal, and that outputs a control signal that is applied to the switch to open or to close the switch.

18. (New) The electronic device of claim 12, wherein the logic comprises a multiplexer that receives the first and second signals and that outputs a signal to control the switch in response to the third signal.